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**PROJECTING INTELLIGENCE, SURVEILLANCE, AND
RECONNAISSANCE IN SUPPORT OF THE
INTERIM BRIGADE COMBAT TEAM**

BY

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ABSTRACT

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The Interim Brigade Combat Team (IBCT) is a uniquely organized force capable of early entry to counter the threat. It is highly dependent on intelligence, surveillance, and reconnaissance (ISR) to achieve dominant maneuver and precision engagement—essential concepts for Joint Vision 2020. Integrated ISR support is critical to the force's ability to conduct future global power projection operations. The United States will face a dynamic and ambiguous environment for the foreseeable future. The Army will employ the Interim Force, specifically the IBCT, to operate in this environment using technology overmatch and information dominance. This research paper examines how Army intelligence supports the IBCT. It describes the ISR structure in the IBCT and supporting military intelligence (MI) structures (Interim Division, Corps, and higher). The IBCT has MI units and platforms embedded to maximize its situational awareness and ensure the IBCT gains situational awareness before it is committed against a possible or identified threat. Based on strategic lift available to the IBCT, the attachment of force enhancement modules is limited. The necessity of the IBCT to operate virtually independent of additional combat units requires the Army intelligence system to equip the force and provide the right institutional support.

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PROJECTING INTELLIGENCE, SURVEILLANCE, AND RECONNAISSANCE IN SUPPORT OF THE INTERIM BRIGADE COMBAT TEAM

The Initial Brigade Combat Team (IBCT) gains its lethality and survivability from maneuver and maintaining positional advantage over an opponent. To capitalize fully on the tremendous capabilities of the IBCT, the organization must achieve superior situational understanding. Military Intelligence is a major contributor to achieving this capability.

—MG John D. Thomas¹

The Chairman's Joint Vision (JV) 2020 called for a 21st Century joint force able to achieve full spectrum dominance, both in peacetime and wartime, and in any form of conflict.² As first explained in JV 2010, full-spectrum dominance is extremely dependent upon harnessing the potential of the information revolution. Today's capabilities of maneuver, strike, logistics, and protection will become dominant maneuver, precision engagement, focused logistics, and full dimensional protection.³ The ability of intelligence, surveillance, and reconnaissance (ISR) to provide situational awareness is essential to full-spectrum dominance.

Likewise, situational understanding is the fundamental force enabler across all Interim Brigade Combat Team (IBCT) battlefield operating systems and the foundation for risk mitigation with respect to its vulnerabilities, particularly the lack of substantial armor protection. The brigade will employ an integrated suite of ISR capabilities and digitized battle command systems to develop and disseminate a common operational picture throughout the force, and to achieve situational understanding. As the commander applies judgment and experience, he attains decision superiority.⁴ Situational understanding and information superiority will enable the force to avoid surprise, develop rapid decisions, control the time and place for combat, conduct precision maneuver, shape the battlespace with precision fires and effects, and achieve decisive outcomes.⁵

ISR support is of the utmost importance to the Interim Force and requires a coordinated effort by the Intelligence Community⁶ (services, joint, and national/interagency) to enable an Army or Joint Strike Force (JSF)⁷ the ability to achieve intelligence superiority throughout the battlespace. This research project looks at the possible scenarios that face the Interim Force, and the capabilities of current and planned ISR assets within the Army force (ARFOR). Finally, it offers recommendations aimed at increasing ISR support to the Interim Force, an ARFOR acting as a part of a JSF, or a Joint Contingency Force (JCF).⁸

THE FUTURE

The Army Transformation Plan projects a complex and multi-polar strategic environment in the next 20 years. There have been more than 50 ethnic wars, over 150 border conflicts and two major wars involving extra-regional forces over the past decade.⁹ The United States' role as the world leader will not diminish over the next quarter century. If anything, it may increase as the world tries to come to grips with a more complex, uncertain, and challenging future. Although the United States does not confront a single conventional military power capable of threatening its security, the establishment of regional alliances and changing priorities of other nations could change the strategic environment. It is conceivable that threats and opportunities could arise from a change in the strategic environment that might threaten American security interests.¹⁰ "Many of the threats to our interests through 2010 and beyond will fall into [the] gray area of 'important' but not 'vital.'"¹¹

Asymmetric threats may result from the proliferation of transnational crime, terrorism, and illicit drug trafficking. National security concerns may stem from shortages of critical resources (oil, water, etc.) and environmental problems (pollution, proliferation of nuclear and chemical agents, etc). Both state and non-state actors are studying the American military and adapting to neutralize the strategic advantages of the United States. The enemies of the United States continue to study their adversary to gain an advantage using their strengths to attack American weaknesses.¹² One author sums up the future threat to the United States noting,

The soldiers of the U.S. Army are brilliantly prepared to defeat other soldiers. Unfortunately, the enemies we are likely to face through this decade and beyond will not be "soldiers," with the disciplined modernity that term conveys in Euro-America, but "warriors":¹³... (W)arriors do not play by our rules, do not respect our treaties, and do not obey orders they do not like....The warrior is back, as brutal as ever and distinctly better armed.¹⁴

The adaptive and unpredictable nature of the myriad threats along with a strategic need to reach "troubled spots" around the world prompted the United States Army (and military) to seek the development of rapid, decisive capabilities to respond across the full spectrum of operations. Some observed a near-term capability gap in current U.S. forces that the Army must fill to ensure the National Command Authorities and regional commanders-in-chief (CINC) have the full range of land-power options necessary to operate in this future uncertain environment. The Army must be capable of operating in a joint, interagency, and multi-national environment.¹⁵ Specifically, the deployment of Task Force HAWK to Albania for operation JOINT FORCE displayed the difficulty moving a heavy Army force to a contingency area within crisis time constraints.¹⁶

The most challenging scenario for American forces and the Intelligence Community is a non-linear, asymmetric battlefield that encompasses America, its allies, and a geographic command's area of operations (AO). General Robert Scales in his article, "Adaptive Enemies," recognizes that the United States is "adverse to casualties and collateral damage, sensitive to domestic and world opinion, and [has a] lack of commitment to conflicts measured in years rather than months."¹⁸ Future scenarios, which have high casualty rates, may push the limits of popular support of the American people. A future battlefield may have several distinct facets: attacks against the continental United States; attacks against intermediate staging bases; attacks on ship movements from the continental United States to a theater; urban and armored fighting in the AO; and stability and support operations in the AO. (See Figure 1)

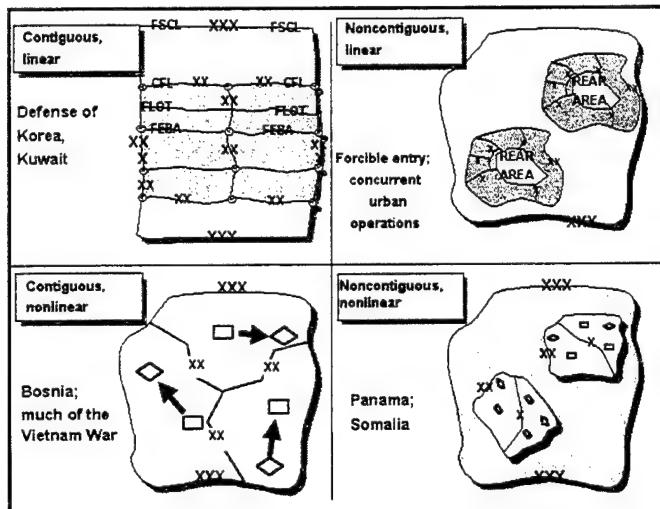


FIGURE 1. FUTURE SCENARIOS¹⁷

The use of intelligence to understand the threat to U.S. military forces is essential in countering the dynamic and pervasive threats of the future. "There can be no question but that information and intelligence qualify as a dimension of strategy, statecraft, and war. The perspective strategic effect likely to be harvested from superior information and intelligence, however, has varied radically with the salient technologies, politics, geographies, and logistics of war."¹⁹ We are in a time where America's enemies will attempt to deny the U.S. access to information and intelligence. A "system of systems" approach, using the IBCT as a building block, will overcome this threat.

LOOK AT CURRENT AND PLANNED CAPABILITIES

The IBCT will execute offensive, defensive, support, and stability operations in a multidimensional, precise, nonlinear, simultaneous, and integrated environment to gain the advantage. The digitization of analog processes will allow the brigade to gain an information mismatch.²⁰ Additionally, the IBCT is specifically designed as an early entry combat force able to operate on: urban/complex terrain with a weak transportation and logistical infrastructure;

within a coalition with an uncertain political situation; and against asymmetrical threats, including mid- and high-end technologies.²¹

Given its orientation on small-scale contingencies (SSC), the IBCT exists primarily as a combined arms, mounted infantry organization capable of high tactical mobility and robust dismounted assault and operating in urban/close terrain.²² (See Figure 2) The IBCT organization intentionally excludes aviation, air and missile defense, combat and construction engineers, and military police, which are provided through a division slice. Although embedding these kinds of sub-units would enhance the overall organizational effectiveness of the IBCT, they would add unacceptable challenges to a strategically responsive, early entry force's ability to meet a 96-hour deployment timeline. Commanders can mission-tailor these capabilities to the IBCT in augmentation packages, if the contingency requires them. Current analysis does not support their inclusion as organic capabilities. However, for each "missing" capability cited above, the brigade headquarters design includes staff cells capable of conducting rudimentary planning and analysis to ensure that all functional areas receive adequate consideration in routine planning and preparation for operations.²³

The IBCT must balance the ability to rapidly deploy and dominate the situation when it arrives on the scene. The Intelligence Battlefield Operating System (IBOS), like other aspects of the IBCT, must have reduced sustainment requirements, minimize its personnel and logistical footprint, use common vehicular platforms, and accomplish more of its functions out of theater and through "reach-back"²⁴ to higher echelons within the JCF or within the United States.²⁵

IBCT ISR ASSETS

The Interim Force concept initiates ISR support changes to the IBCT, specifically organization and asset integration, and the IBCT's organic equipment. These changes make the IBCT rich in intelligence gathering capability and uniquely designed to win the battle for situational awareness. The Reconnaissance, Surveillance, and Target Acquisition (RSTA)

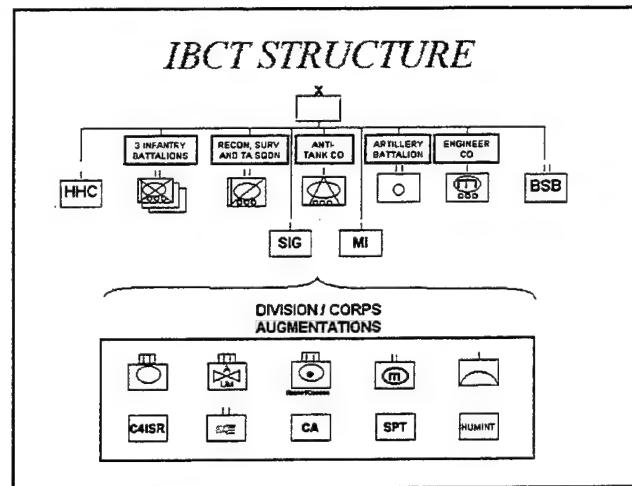


FIGURE 2 IBCT STRUCTURE

Squadron (See Figure 3) has organic intelligence assets and the IBCT has an organic MI company.

RSTA Squadron

The RSTA Squadron is a unique organization developed to “see, know, and understand the operational environment in detail, instead of applying traditional reconnaissance, focused primarily on enemy forces, with the objective of creating an umbrella of understanding across the AO.”²⁶ RSTA squadron operations integrate with the activities of the infantry battalion reconnaissance platoons and other ISR assets managed at brigade level. The squadron employs human intelligence (HUMINT) and counterintelligence (CI) experts to compliment existing sensor capabilities that are more suited for open terrain and unit/force-based information.²⁷

The RSTA Surveillance Troop (RST) conducts multidiscipline surveillance operations to support the IBCT’s planning, preparation, and execution of multiple, simultaneous actions in its AO. (See Figure 4) The RST uses an air reconnaissance platoon, a ground sensor platoon, and an NBC reconnaissance platoon:

- The Air Reconnaissance Platoon’s (ARP) tactical UAVs (TUAV) enable the IBCT to expand its eyes considerably, mitigating the absence of rotary wing reconnaissance. The ARP is capable of 12 hours of continuous operations, or limited surge operations for 18 hours, on station within a 24-hour period. The TUAV is dynamically retaskable in flight, ensuring responsiveness to the commander’s immediate information requirements. The TUAV is fully integrated with and cued by other collection systems such as Joint Surveillance, Targeting, and Reconnaissance System (JSTARS), Guardrail Common Sensor (GRCS), artillery counter mortar/battery radars and the Forward Area Air Defense Command, Control, and Communications and Intelligence system, also called FAADC3I. At a 50 kilometer range, the TUAV’s four-hour loiter time reduces its effectiveness as a long-term surveillance

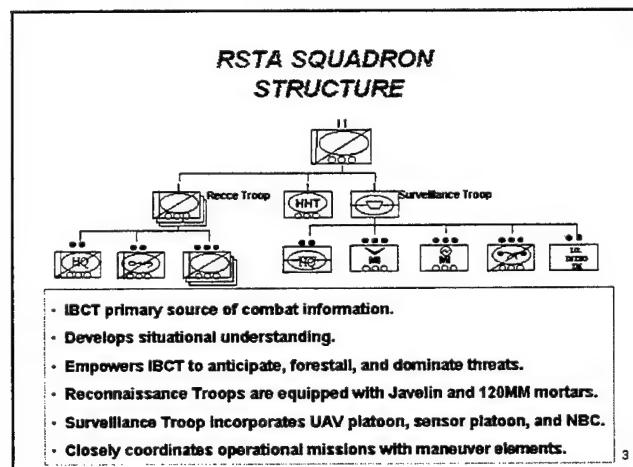


FIGURE 3. IBCT RSTA SQUADRON

system. The TUAV has three air vehicles (plus one spare) per system, restricting its employment and coverage.²⁸

- The Ground Sensor Platoon (GSP) has four Measures and Signature Intelligence (MASINT) Teams capable of operating a ground surveillance radar system (GSR) or a Remote Battlefield Surveillance System (REMBASS).²⁹

The GSP assets collect and report moving targets using a combination of radars and remote sensors. The GSP also has three Prophet systems (teams). The three tactical Signals Intelligence (SIGINT) collection teams provide signals interception and direction finding data on threat emitters. The tactical SIGINT collection teams exploit the external properties of signals and must be supplemented by linguists to exploit voice intercept. Operational and strategic SIGINT organizations exploit the internal properties of signals. The Prophet teams will mount a GSR to augment the SIGINT capability, thus allowing for multiple-intelligence gathering.³⁰

- The NBC Platoon provides the IBCT's core capability for detection and early warning of chemical and radiological contaminants, plus some forms of biological agents.³¹

The RTSA squadron performs reconnaissance by using stealth, fighting for information, and using HUMINT. Stealth is preferred for both conduct of traditional reconnaissance against conventional formations and while interacting with the civilian community. The RSTA squadron fights for information, when the tactical situation requires. It usually conducts this mission under high-risk conditions involving limited and local attacks while avoiding decisive engagement. The IBCT's robust HUMINT assets can obtain an in-depth understanding of the IBCT AO through direct interaction with special police, politicians, military/para-military organizations, non-governmental and international organizations (NGO, IO), and groups within the populace.³²

Military Intelligence (MI) Company

The MI Company essentially operates as an extension of the brigade intelligence staff (S-2) for internal and external management of ISR collection assets. (See Figure 5) It provides analysis to support the development of the IBCT common operational picture (COP), targeting/effects, and intelligence preparation of the battlefield (IPB). The company contains

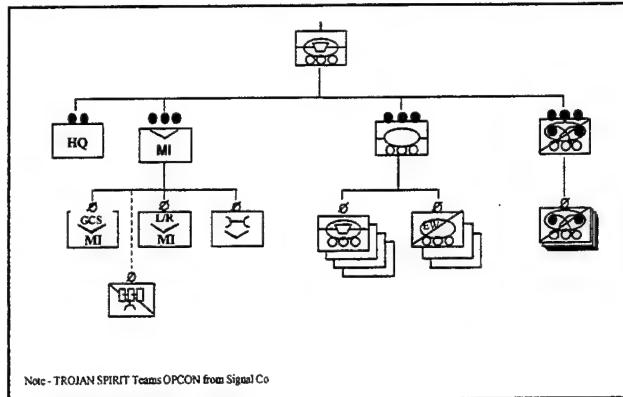


FIGURE 4. RSTA SURVEILLANCE TROOP

organic systems necessary to interface with ISR systems resident at division, ARFOR, joint, theater, and national levels, and supports the tactical HUMINT activities required in the SSC environment.³³ The MI company consists of a company headquarters element, an ISR analysis platoon, an ISR integration platoon, and a tactical HUMINT platoon.³⁴

- The ISR Analysis Platoon (ISRAP) develops the threat disposition and situation, targets, and battle damage assessment (BDA) in support of the IBCT S-2 section. It conducts distributed and collaborative analysis by gathering, analyzing, and fusing information from multiple echelons and sources.

Ultimately, the ISRAP uses combat information, targeting data, and intelligence from all the IBCT's ISR resources. The platoon develops an accurate and timely intelligence assessment of the threat and the environment. The ISRAP operates organic processing and communications systems to collaborate with external analytic elements, the IBCT S-2 section, subordinate battalion S-2s, and the ISR integration platoon to continuously update

and refine the threat portion of the IBCT's COP. The ISRAP "pulls" and receives intelligence and other relevant information from non-organic ISR organizations³⁵ to enhance the analysis and reporting of organic ISR assets. It consists of seven specialized teams: situation development; threat disposition development; target development; imagery analysis; Joint Deployable Intelligence Support System (JDISS);³⁶ database management; and intelligence plans.³⁷

- The ISR Integration Platoon (ISRIP) provides continuous visibility and status of collection assets down to individual platform, and manages the ISR requirements of the brigade and subordinate units. This is a continuous assessment process that must be tightly managed and adjusted to ensure the effectiveness of the IBCT's ISR efforts. This process allows the IBCT commander to efficiently manage the ISR effort between echelons and supports dynamic tasking of the IBCT's ISR assets. The IBCT commander possesses the ability to oversee tactical HUMINT operations through his CI and HUMINT Mission Manager (S-2X)³⁸ and access non-organic sensors via the Common Ground Station (CGS). In support of the IBCT S-2

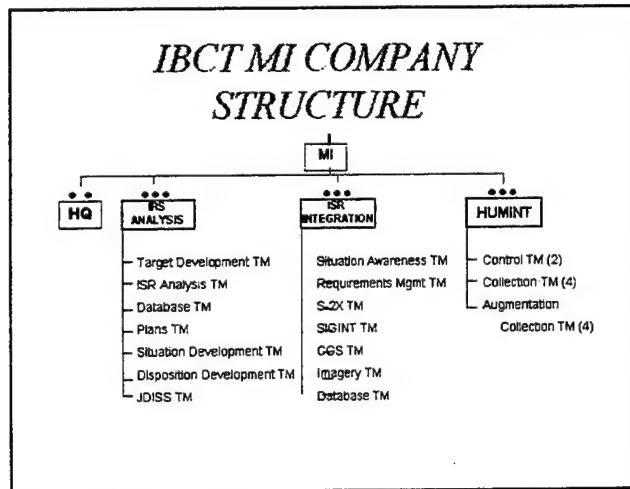


FIGURE 5. IBCT MI COMPANY

section, the ISRIP manages ISR requirements, deconflicts HUMINT sources, and multi-sensor visualization for the IBCT commander and staff. The platoon consists of an ISR requirements management team, a S-2X team, and a CGS team.³⁹

- The HUMINT Platoon takes advantage of the robust HUMINT collection environment in IBCT's operational area.⁴⁰ The platoon conducts HUMINT collection and exploits documents in support of the commander's information requirements in the IBCT's AO. The tactical HUMINT platoon consists of two operational management teams (OMT) and eight tactical HUMINT teams, four organic and four augmentation. The IBCT S-2 task organizes and positions the teams based on the mission, enemy forces, terrain, troops available, time, and civilian considerations (METT-TC).⁴¹ Since the IBCT has a global focus, there are two priorities: understanding the AO and the threat, and information and data management. The use of contract or host-nation linguists will help with the challenge, clearly one hard to meet.⁴²

INTERIM DIVISION (IDIV).

The IDIV concept uses three IBCTs as its primary fighting components. (See Figure 6) It provides more broad-spectrum capabilities than the other IBCT-embedded divisions.⁴³ The IBCT-based IDIV deploys in the initial phase of major regional contingencies under an ARFOR. As the lead division for a JCF, the IDIV deploys an early-entry IBCT within 96 hours, followed closely by the rest of the division within 120 hours.

The IDIV shapes the battlespace in initial operations, alter conditions to prevent the enemy's early success, facilitate the arrival of follow-on forces and expedite decisive operations.⁴⁴

The IDIV provides the corps or joint force commander (JFC) with a strategically responsive, early entry ground force that is capable across the range of Army operations. Designed to be a strategically responsive force,⁴⁵ it must defeat ground threats in the operational environment of the early part of the 21st Century (2003 – 2010). The IDIV's ability to gain, maintain, and exploit information superiority is essential to overmatching the threat forces and dominating its AO. While the IDIV is optimized for offensive operations, it has the

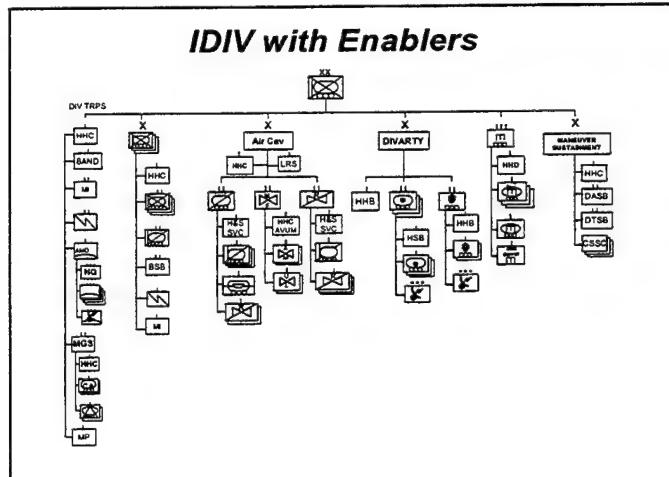


FIGURE 6. INTERIM DIVISION.

capability to conduct defensive, stability, and support operations in any operational environment from a Major Theater of War (MTW) to a SSC. It conducts operations to seize and control ground, and to destroy enemy forces in a wide variety of terrain and environments.⁴⁶

Using its information-focus and ISR systems, the IDIV takes advantage of its improved COP to enhance the division and subordinate commanders' situational understanding and to dramatically improve the synergy of the combined arms team. Enhanced understanding results in precision operations, allowing the division to tailor its assets, while reducing the deployed footprint of the division. The division's improved connectivity to joint forces will enable it to bring the full weight of the joint team to bear at the appropriate time and place to facilitate decisive operations. The enhanced situational understanding within the division allows maneuver forces to achieve positional advantage with greater speed and precision, avoid enemy strengths, and combine the effects of direct and indirect fires to seize and hold terrain or destroy enemy forces. The division's COP, in particular improved target acquisition and tracking, allows long range systems (ATACMS, attack helicopters, and MLRS) to achieve greatly increased precision and lethality.⁴⁷

The IDIV sequences, synchronizes, and reinforces the action of its subordinate brigades to achieve maneuver dominance. The IDIV can organize combined arms task forces with combinations of artillery, attack aviation, and air cavalry, and supported by intelligence, air defense artillery, military police, and engineers to shape and conduct decisive operations. The IDIV supports brigade operations by providing additional reconnaissance and aviation assets. The air cavalry brigade (ACB) conducts shaping operations throughout the division AO, including security operations, surveillance, target acquisition, and reconnaissance.⁴⁸ In some cases, the ACB may conduct the decisive operation when task organized with ground maneuver units and supporting arms. The ACB's RSTA squadron is similar to the RSTA squadron found in the IBCT, but lacks the UAV's that are organic to the RST.⁴⁹

The IDIV has the capability to access corps, joint force, theater, and national intelligence systems. These imagery intelligence (IMINT), signal intelligence (SIGINT), and human intelligence (HUMINT) assets provide input to the COP.⁵⁰ The IDIV can simultaneously provide all major subordinate commands with continuous real-time intelligence concerning the division's AO via "broadcast systems."⁵¹ The IDIV has the organic capability to significantly reduce battlefield uncertainty in the absence of joint and national feeds through organic reconnaissance, surveillance, targeting, and acquisition (RSTA) and MI assets.

Military Intelligence (MI) Battalion

The IDIV's MI battalion provides multi-disciplined intelligence support to the division, including communications intercept, DF, electronic counter-measure (ECM), and limited surveillance. It provides the division analysis and control element (ACE), which normally locates in the sustainment command post (CP) but responds to the division intelligence officer (G-2) in the main CP.⁵² The MI battalion consists of a company headquarters company, an air reconnaissance company, a HUMINT company, the ACE company, and a processing company. (See Figure 7)

- The Air Reconnaissance Company (ARC) provides UAV support to the division. While the UAV platform has not been decided, the TUAV organic to the IBCT is a candidate. The IDIV's deep operations requirements may dictate a close-range UAV, like the Hunter used by the 15th MI Battalion (Aerial Exploitation). The ARC has fourteen air vehicles allocated to meet the division mission. In addition to infrared/electro-optical, the use of special purpose SIGINT packages will give the MI battalion a multi-discipline capability to meet the division commander's requirement. Based on technological limitations (weight), UAV SIGINT platforms can mount a SIGINT or IMINT package, not both. As technology advances, these UAV platforms may have both SIGINT and IMINT systems.⁵³ The UAVs must fully integrate with other collection systems.

- The HUMINT company takes advantage of the IDIV's collection environment. The company conducts HUMINT collection and exploits documents in support of the commander's information requirements in the IDIV's AO. The HUMINT company consists of two operational management teams (OMT), four CI teams, and four tactical HUMINT teams. These teams are task organized and positioned to meet the commander's priorities.

- The ACE Company provides robust analytical support to the division commander. The ACE sections assist the division G-2 in controlling intelligence operations and satisfying the ISR priorities of the division. It consists of single source (IMINT, SIGINT, etc.) analysis teams that fuse the intelligence picture. The ACE works closely with the IBCT's ISR analysis and integration sections.

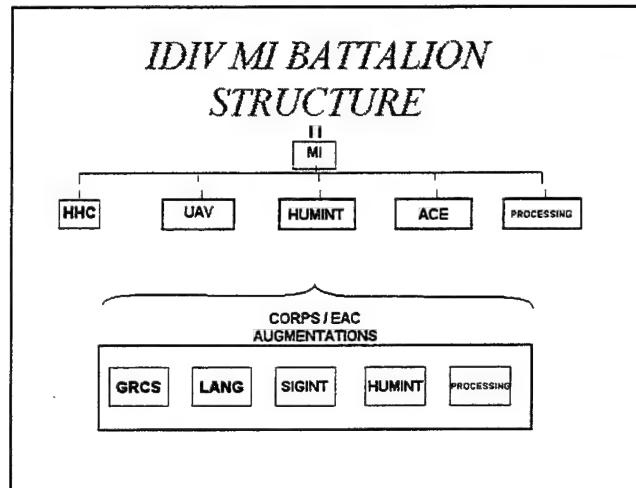


FIGURE 7. IDIV MI BATTALION.

- The Processing Company uses the capability of the Division Tactical Exploitation System (DTES) to provide the division with data derived from the exploitation of national capabilities, also called TENCAP systems.⁵⁴ The DTES allows intelligence from numerous systems to be processed, exploited, and disseminated into three primary systems: All Source Analysis System (ASAS), Common Ground Station (CGS), and the Digital Topographic Support System (DTSS).⁵⁵

CORPS-LEVEL CONSIDERATIONS

Analytical scenarios set in the Middle East, South Asia and Eastern Europe suggest potential locations for smaller-scale contingency operations that would not necessarily require a division force. In these cases, when available strategic lift supports division and corps augmentation, the IBCT provides the warfighting CINC with early, dominant capabilities. In this role the IBCTs deter, contain or shape the outcome of the contingency, allowing the corps and its divisions to focus on potential major theater warfare.⁵⁶

The corps or JTF tailors the IDIV for all missions based on METT-TC by allocating capabilities not resident within the division, or to reinforce capabilities already on hand. In stability and sustainment operations (SASO), additional assets may come from either the parent corps or from outside the corps. Additionally, augmentation can come in the form of echelon above division units, or units from other divisions to reinforce or compliment divisional capabilities.

The IBCT and IDIV may receive intelligence support from the corps MI brigade. While the transition to the Interim Corps is anticipated, its structure is undetermined. The IBCT and IDIV will receive appropriate Corps-level MI collection support to augment intelligence and processing shortfalls. Currently, a typical Corps MI brigade consists of a headquarters detachment, an operations battalion (OPB), an aerial exploitation battalion (AEB), and a tactical exploitation battalion (TEB). If the MI brigade does not have an organic TEB, the brigade may receive a reserve component (RC) battalion. The OPB has an ACE company and a SIGINT processing company. The AEB will have a Guardrail Common Sensor (GRCS) company with six GRCS aircraft and possibly an ARC with eight UAVs. The TEB has an interrogation company with 12 HUMINT teams, a CI company with 12 teams, and may have a long range surveillance company (LRSC), consisting of 18 teams. The LRSC is organic to the XVIII Airborne Corps and V Corps, while I and III Corps receive RC support.⁵⁷

THEATER INTELLIGENCE BRIGADES (TIB).

The TIB is under the command of the Army Intelligence and Security Command (INSCOM) and is under the operational control of the Army Service Component Command (ASCC).⁵⁸ It deploys all or part of the brigade to conduct theater level multi-discipline intelligence and security operations in support of Army components of regional CINC's as directed during war and SASO. The TIB plans, coordinates, manages, and executes intelligence operations, all-source intelligence analysis, production, collection management and dissemination, in support of the ASCC and the deployed ARFOR. The generic TIB has an OPB, a collection and exploitation battalion, an air reconnaissance battalion (ARB), and an RC theater support battalion.⁵⁹ As an example, the 513th MI Brigade consists of a SIGINT battalion, a CI and HUMINT battalion (CIHB), an OPB, and an ARB.

The SIGINT battalion conducts Signal Intelligence collection and analysis and MASINT collection. The CIHB conducts counterintelligence, interrogation, document exploitation and HUMINT analysis. The OPB provides tactical, operational, strategic all-source intelligence support; targeting; collection management; and communications support for force projection operations. The ARB provides aerial SIGINT and IMINT using a one-of-a-kind aircraft (DeHavilland Dash 7). The Dash 7 provides airborne intercept, DF, and imagery, and moving target indicators.⁶⁰

EVALUATION OF SUPPORTABILITY

While the dynamic nature of the future battlespace challenges all of the battlefield operating systems, the IBOS has the critical mission of providing the IBCT's situational awareness crucial to dominate maneuver and precision strike requirements. The doctrine, training, leadership, organization, materiel, and soldier (DTLOMS) model provides a framework for the evaluation of IBCT ISR support.

DOCTRINE

The IBCT will incorporate the five key principles of intelligence support to force projection: the commander drives intelligence; intelligence synchronization; split-based operations; tactical tailoring; and broadcast dissemination.⁶¹

First, the IBCT focuses on the acquisition of intelligence as its first priority, allowing high demand/low density (HD/LD) ISR resources to target the most important areas of interest. Since the COP is tied to the efficient use of ISR, commanders must tie their priorities to available resources. Second, using organic intelligence systems, the IBCT "hooks" into the

intelligence hierarchy of systems. The intelligence “system of systems” construct allows for the synchronization of the entire ISR apparatus and a better COP. When the IBCT, operating as part of a joint force, is the initial Army unit in theater, IBOS synchronization is essential. Third, the lack of airlift sorties and the requirement to get to the battlefield within 96 hours makes split-based operations for all BOSs a critical feature of the IBCT. Using rear command posts in “sanctuary,”⁶² the IBCT can gain valuable information from the entire Intelligence Community using “reach-back” capabilities. Recent experiences in Bosnia, Kosovo, and Kuwait illustrate the importance of split-based operations to the commander and his staff as they conduct assessments of the battlespace. They are able to leverage the expertise and staffing that are available in reach-back locations, regional and national.⁶³ Fourth, while the IBCT is uniquely postured to meet its own ISR requirements in an SSC, there will be scenarios that require more of a specific asset. A Bosnia-like scenario may require a need for near-real-time SIGINT collection that does not reside in the IBCT. Using “tactical tailoring” techniques and “standing” force enhancement modules (FEM), the IBCT can integrate special-purpose built systems (SPBS) that address specific sources to exploit in the operational environment. Finally, the capability to pull intelligence from broadcast dissemination systems allows for a COP with more granularity. A high-resolution COP is essential for the IBCT to conduct a multitude of operations across a non-linear battlefield.

The variety of field manuals produced by the U.S. Army Intelligence Center and School (USAICS) address holistic MI procedures. The challenges facing the IBOS derive from the dynamic nature of the intelligence tactics, techniques, and procedures (TTP) and keeping these TTPs in pace with the changing operational environment. Military intelligence units throughout the Army continue to struggle with this problem. New equipment, software, and ideas make the training of soldiers and leaders extremely difficult.⁶⁴ While the IBCT incorporates the principles of the IBOS, a methodology for updating its doctrine in a timely manner is a centerpiece of maintaining one of the IBOS’s primary features—disciplined operations.

TRAINING

The IBCT offers expanded opportunities for military intelligence soldiers to impact IBCT operations. Their ability to work as a team is essential to the IBCT’s ISR and COP efforts. Brigadier General Richard Quirk, Deputy Commandant of the USAICS, highlighted the need for better training across the IBOS, “The intelligence soldier of tomorrow will require a professional education; our traditional military training will not be sufficient.”⁶⁵

The soldier is the key independent variable in future operations. Education must be more than task based. It must address the art of intelligence. After the dissolution of the Soviet Union, analysts addressed a variety of unpredictable threats. The USAICS must develop and rigorously institute an educational system focused on future threats and an ambiguous environment.⁶⁶ Education at USAICS must concentrate more on the “how to think” and less “what to think.” Most units have the expertise to work the latter and can build on a good foundation of the former. Unit training programs orient on individual and crew drill, but the harder task is developing soldier analytical skills. It is also critical for the IBOS to start with intelligent and adaptable people and even more critical to retain them past their initial enlistment.

The USAICS must continue its efforts to build web-based education. Using our warrant officer corps (active, reserve, and retired) as a resource, soldiers should be able to develop and enhance their training through an on-line mentorship program. Although simulations have been used effectively with SIGINT training in the past, the use of simulations for HUMINT/CI soldiers requires improvement. HUMINT/CI expertise is critical to the IBCT’s employment. To be effective, HUMINT/CI, including the S-2X, must integrate trained teams with the combat forces. Commanders and “warfighters” must gain experience using them and valuing their ability to supply the “human” element. Further, USAICS must work with the other services, joint headquarters, and national agencies to ensure trainee analysts and operators share a common base of knowledge and that service unique TTPs are incorporated into simulations. To meet the future challenge, we must have institutionalized joint and interagency education programs in each of the services.

LEADERSHIP

Army transformation requires more than just a change to force structure and equipment. It requires “a new way of thinking.” Key to the transformation is our leadership. The IBCT structure is a direct result of senior military intelligence branch leaders recognizing the IBCT’s need for a different ISR structure. While it would have been easier to put a status quo organization in the IBCT, the DCSINT and USAICS leadership saw the opportunity to build an organization to meet future requirements. The IBCT stretches the system and requires a different way of leading soldiers.

The ISR “director” for the IBCT is an MI officer serving as the S-2. This MI officer is critical to the success of the IBCT and MI’s credibility. The IBCT organization tables authorize a major for the battalion S-2 job and it is critical that a major fill that slot. A common complaint at

the combat training centers (CTC) is “the S-2 is not experienced enough.”⁶⁷ Often we assign captains to serve as brigade S-2s, because we are short majors. The complexity of the IBCT’s ISR effort will require a senior MI officer and a highly trained professional. Military Intelligence must assign majors to IBCT S-2 jobs, ensure they are trained to meet the rigors, and assign appropriate branch qualification to successful completion. Recent field-grade training at USAICS for G2’s and ACE Chiefs is a good start. The projected use of IBCTs, acting independently or as part of an IDIV, mandates Command and General Staff College graduates in IBCT S-2 positions. Using company command “prerequisites” (captains and career course graduates) as a guide, IBCT S-2s must be majors and resident CGSC graduates. Additionally, USAICS must develop an education program for the Surveillance Troop commander and the IBCT’s MI Company commander. The requirement to act independently or as a part of a joint force (or joint strike force) dictates a broader knowledge base. The Officer Personnel Management System (OPMS) XXI system may facilitate the assignments and understanding that the IBCT’s leaders will need. A new education system, as discussed by General Quirk and mentioned earlier, may address this critical requirement. It is too important to gloss over. Further, the junior MI leaders in the IBCT may face similar challenges and require specific “tracks” to be added to current and future institutional training. Ultimately, we must change our mindset from, “Leaders are important” to “quality leaders are essential.” Unlike our current “alert > train > deploy” approach to war, the “train > alert > deploy” approach will require more of our leaders than previously.⁶⁸

ORGANIZATION AND MATERIAL

The IBCT’s organization is uniquely information-centric. The IBCT embeds ISR to the lowest levels and throughout the organization. Figure 8 displays the nature of systems across the spectrum of operations. The center oval highlights the full-spectrum environment in which the IBCT operates and the requirement to address all intelligence disciplines to meet the variety of challenges that an adversary may possess.

Key among the IBCT ISR features will be the use of a standard vehicle, making maintenance and services easier. Additionally, the use of a common vehicle allows collection platforms to blend in with their surroundings, increasing their survivability. The integration of CI/HUMINT into the RSTA squadrons allows for better understanding of ISR capabilities and better integration into the COP.

The IBCT has all of the newest MI systems and offers the IBCT a true multi-discipline capability. While the SIGINT capability of the tactical commander is different, it addresses the

IBCT's dynamic operating environment. Specifically, the IBCT's Prophet SIGINT systems will evaluate "internal" signals characteristics to "map" the enemy situation.⁶⁹ Currently, most units deploying to the CTCs have SIGINT systems attached or in a general support reinforcing role. Based on the complexity of current signals, the IBCT will require SPBS or the exportation of "external" signals⁷⁰ for exploitation at a higher echelon. Due to the limitations of legacy SIGINT systems, the Prophet-Ground systems organic to the IBCT provide a better capability to collect and jam. At division-level, Prophet-Air systems will eventually fill the void created by the transition from Quickfix II collection and jamming helicopters (EH-60A). Prophet-Air will use a UAV platform that has a "plug and play" capability, allowing for a change from a SIGINT mode to infrared/electro-optical collection. The Prophet-Air platforms at the IDIV-level require a Hunter-like range (150 kilometers) vice the TUAV (50 kilometers).⁷¹

Success of the IBCT ISR effort is extremely dependent on the signal community's ability to provide a broad bandwidth backbone for dissemination and collaboration. The creation of the Trojan-network for operation DESERT STORM was MI's answer to the same shortfall in 1991. Additionally, the COP will require a near-real-time input capability for the collectors of information. The HUMINT/CI teams should be equipped with personal digital assistants ("palm pilot") to record information and make reports.⁷² The signal backbone must allow for their inputs to be submitted remotely, instead of being tied to their vehicle. The bandwidth of signal equipment must continue to grow to enable thorough and efficient dissemination and flexible reach-back.

Using the JSF as a model for future of joint forces and a potential higher headquarters for the IBCT and its IDIV, it is essential for the IBOS to integrate the ISR assets for the IBCT with all ISR assets and analytical headquarters to create a relevant COP. The IBCT must be a part of the joint collaborative community. The concept for the JSF relies on intelligence support. It uses sensor maneuvering, networking and cross-cueing to enhance the JSF's situational awareness and understanding.⁷³ The IBCT's ISR resources are an essential part of a multi-

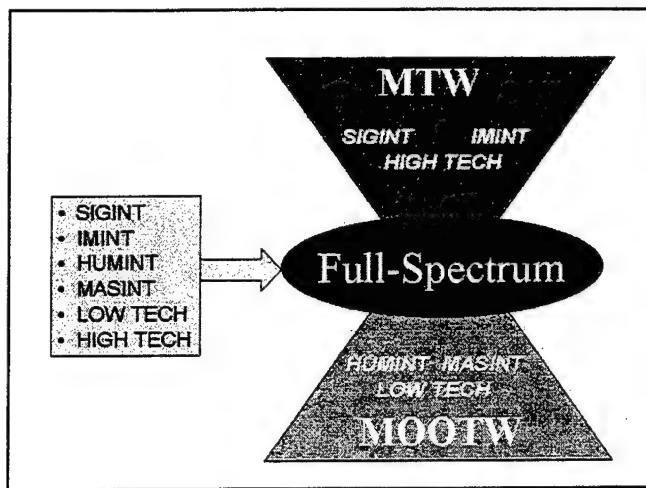


FIGURE 8. SPECTRUM OF OPERATIONS

layered, multi-function sensor network. State-of-the art computer systems and networks enable the IBCT analysts to be a part of this collaborative network. As UAVs, unmanned ground sensors (UGS) and robotic vehicles become a part of a more mature Interim Force, all sensors will integrate to ensure commanders and their staffs have a relevant COP.

SOLDIERS

Despite the evolution of technologies, soldiers will continue to play a crucial role in future conflict. The IBCT, as the lead ground unit to a "hot spot," will demand new and innovative recruitment, training, and retention techniques to man a force capable of meeting the Army's stated goals. As displayed in Figure 8, the upper end of the spectrum of operations is extremely dangerous and the lower end is extremely complicated and dynamic. The SSC-environment is as dangerous as an MTW and, like a SASO-environment, SSCs offers a very diverse set of circumstances. Future rules of engagement require situational and cultural understanding by junior leaders and soldiers. The potential impact of flawed decisions at the team- and squad-level has strategic-level significance and affects American policy. The IBCT's rapid reaction capability will require thorough training before the IBCT assumes its dynamic power projection role, a synchronized effort during deployment, and an ability to fight upon entry into the target area. The ISR effort is continuous throughout the deployment process, including in-flight updates and, upon arrival, situational awareness as the analytical footprint expands. The real challenge will be balancing all of the requirements of the soldier.

RECOMMENDATIONS

There are three key recommendations for improving ISR support to an IBCT acting as a part of an ARFOR, a JSF, or a JCF.

First, the Army must continue to support the new formation of relevant intelligence organizations. The IBCT organization has the right balance of collectors, analysts, and leaders to ensure the IBCT has organic ISR support and the ability to receive FEMs and reach-back to multi-echeloned intelligence organizations and agencies. The IBCT concept addresses the need to put HUMINT/CI resources at the brigade-level. This is critical to addressing the needs of the IBCT and addresses the shortage of Army CI assets available for SASO. The deactivation of two corps-level TEB's in 1996 exacerbated an already stretched HUMINT/CI force. While the Army is adjusting its structure from the brigade level and working its way up, it is important to nest the IBOS. Concept developers must look at the organization of intelligence resources holistically. Since the structure of the IBCT will require augmentation from Division, Corps, and the TIB, it is essential that these echelons evolve in parallel fashion to the IBCT and

not sequentially. The nesting of missions requires echelon above corps units to develop adaptable FEMs capable of meeting the IBCT's timelines.

Second, Army intelligence must continue to leverage technology and innovative management techniques and work with the Services, the Intelligence Community, and international partners to have all intelligence organizations using compatible systems. Intensify efforts to use ASAS as the common platform for all Army operations. Simplify TTPs and share information with joint and international partners. Continue to develop virtual collaborative analysis as an essential component of ISR support to the IBCT. In addition to improving interoperability, training is essential to the IBCT's ability to gain information dominance. Simulations and joint education form the foundation for future training. Experiences from the All Services Combat Identification Equipment Tests display the shortcomings of joint intelligence gathering and analysis. Specifically, Marine Corps and Army intelligence analysts cannot create a COP without the Army providing a liaison with an ASAS remote workstation. Army and Air Force could not share BDA until the Air Force provided a specific radio with a digital feed.⁷⁴

Third, Army intelligence must work closely with Army signal to ensure adequate broad band communications at the lowest level. The IBCT relies on multi-nodal ISR inputs to maintain an accurate and relevant COP. Conceptually, the vehicle in the IBCT is not as important as what it represents: an enabler that allows soldiers to act and fight as an internetted, networked, and combined-arms team.⁷⁵ While the use of Trojan SPIRIT communications has allowed Army intelligence to meet its split-based operational requirements, Army intelligence used its funds and out-of-hide manning for this communications system. Expeditious fielding of SMART-T⁷⁶ and STAR-T⁷⁷ is essential to the IBCT's ability to reach-back for ISR support.⁷⁸ Signal personnel must be a part of the IBCT's ISR structure to maintain intelligence center networking.

CONCLUSION

The end of the Cold War destroyed the balance of power throughout the world, and created instability and uncertainty. The Persian Gulf War was not only a major success for the United States, but it also brought our military new challenges. The decade of the 1990's displayed how unstable the world could be. Numerous SSCs, accentuated by the inability of Task Force HAWK to meet deployment requirements, highlighted the need for the United States to have a more deployable Army while maintaining its lethality and survivability. The IBCT provides the National Command Authorities a viable Army option that is capable of winning wars and contributing to peace. Leveraging ISR is essential to the IBCT's ability to dominate

maneuver and provide precision engagement. Situational understanding, gained by ISR, allows all battlefield operating systems to enhance their effectiveness and for the IBCT to mitigate risk.

Recently, the Army DCSINT stated, "The goal of Army intelligence is to facilitate situational dominance by Army decision makers and warfighters. The key to situational dominance is information superiority that enables the seven operational characteristics of the Army Objective Force: responsiveness, deployability, agility, versatility, lethality, survivability, and sustainability."⁷⁹ A complete ISR system will give commanders the ability to face adaptive enemies using myriad advanced technologies to attack the United States asymmetrically using low technology, yet lethal, weapons of the past.

General Shinseki has the Army postured to meet his long term goal, "To adjust the condition of the Army to better meet the requirements of the next century, we articulate this vision: 'Soldiers on point for the nation transforming this, the most respected army in the world, into a strategically responsive force that is dominant across the full spectrum of operations.'⁸⁰ While the challenges of the future are daunting, Army intelligence can meet the Chief of Staff's challenge.

The discussion and analysis in this paper described how important ISR support is to the IBCT. Integration of ISR sensors provides a relevant COP for analysts throughout the battlespace. Using a collaborative analytical effort, intelligence officers provide their commanders actionable intelligence that supports their decision-making. Using a holistic approach with an emphasis on training and developing leaders, ISR will ensure the Interim Force has the ability to operate in the dynamic and violent world of the 21st Century.

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ENDNOTES

¹ John D. Thomas, MG, USA, "VANTAGE POINT: The Initial Brigade Combat Team," Military Intelligence 26 (April-June 2000): 2.

² Joint Chiefs of Staff, Joint Vision 2020 (Washington, D.C.: U.S. Joint Chiefs of Staff, 2000), 5.

³ Ibid, 2.

⁴ Michael Mehaffey, COL, USA, "Vanguard of the Objective Force," Military Review 80 (September-October 2000): 10. The COP is the current set of command and staff estimates, situation graphics, and other relevant data that is understood by and digitally accessible to all parts of the force.

⁵ Ibid, 10.

⁶ George J. Tenet, A Consumer's Guide to Intelligence (Washington, D.C.: U.S. Central Intelligence Agency, 1999), 44. The aggregate of the executive branch organizations and agencies involved in intelligence activities: CIA; NSA; DIA; NIMA; NRO; State; four armed services; DOD; FBI; Treasury; Energy; and the Office of the Director of CIA.

⁷ Rick Lynch, COL(P), USA, ed., Joint Strike Force Implementation, Final Draft. (Fairfax, VA: Institute of Defense Analysis, 20 September 2000), 3. The Joint Strike Force (JSF) is a standing joint headquarters assigned to the warfighting CINCs with synchronized, aligned joint mission-tailored forces. The JSF is an innovative approach to command, controlling, and employing joint forces to resolve SSCs with his area of responsibility using rapid and decisive operations in the 2004-2007 timeframe.

⁸ Department of the Army, Tactics, Techniques, and Procedures for BRIGADE INTELLIGENCE OPERATIONS IN A JOINT CONTINGENCY FORCE, Field Manual 34-10-6/ST, Initial Draft-v1.0, (Fort Huachuca, AZ: U.S. Army Intelligence Center and Fort Huachuca, 29 February 2000): 2-12. The Joint Contingency Force, or joint task force, is a complex system of personnel, organizations, and equipment.

⁹ Larry R. Ellis, LTG, USA, Deputy Chief of Staff for Operations, Army Staff, "United States Army Transformation Campaign Plan-ACTION MEMORANDUM," memorandum for Under Secretary of the Army, Washington, D.C., 30 October 2000.

¹⁰ Ibid.

¹¹ Robert H. Scales, Jr., MG, USA, AMERICA'S ARMY: Preparing for Tomorrow's Security Challenges, Army Issue Paper No. 2 (Carlisle Barracks, PA: U.S. Army War College, 1999), 4.

¹² Ellis.

¹³ According to Ralph Peters, author of Fighting For The Future: Will America Triumph?, "Warriors" are erratic primitives of shifting allegiance, habituated to violence, with no stake in civil order.

¹⁴ Ralph Peters, Fighting For The Future: Will America Triumph?, (Mechanicsburg, PA: Stackpole Books, 1999), 33.

¹⁵ Ellis.

¹⁶ Robert C. Owen, Col, USAF, and Todd A. Fogle, Capt, USAF. "Air Mobility Command and the Objective Force: A Case for Cooperative Revolution," Military Review 81 (January-February 2001): 11.

¹⁷ Department of the Army, Tactics, Techniques, and Procedures for INITIAL BRIGADE COMBAT TEAM, Field Manual 34-80-2/ST, Coordinating Draft (Fort Huachuca, AZ.: U.S. Army Intelligence Center and Fort Huachuca, 31 October 2000), 4-16. The author extracted this illustration from "Figure 4-4. Areas of Operations. The illustration depicts combinations of contiguous and noncontiguous areas of operations with linear and nonlinear operations." The author modified the illustration to highlight the areas specific to this project, thus omitting "JTF Andrew" from the "Nonlinear Operations" portion.

¹⁸ Robert H. Scales, Jr., MG, USA, "Adaptive Enemies: Achieving Victory by Avoiding Defeat," Joint Forces Quarterly 23 (Autumn/Winter 1999-2000): 12-13.

¹⁹ Colin Gray, Modern Strategy (New York: Oxford University Press, 1999), 35.

²⁰ Department of the Army, Tactics, Techniques, and Procedures for INITIAL BRIGADE COMBAT TEAM, Coordinating Draft (Fort Huachuca, AZ: U.S. Army Intelligence Center and Fort Huachuca, 31 October 2000), 2.

²¹ Department of the Army, The Interim Brigade Combat Team Organizational and Operational Concept, Version 4 (Fort Monroe, VA: Training and Doctrine Command, 30 June 2000), 7.

²² Ibid, 19.

²³ Ibid, 23.

²⁴ Department of the Army. The Interim Division Organizational and Operational Concept, Version 3.7 (Fort Monroe, VA: Training and Doctrine Command, 30 June 2000): 64. The concept of "reach-back" encompasses the capability of the IBCT to exploit a multitude of non-organic resources to accomplish its assigned missions. The IBCT executes reach-back on a routine, deliberate basis as a combat power and sustainment multiplier, in five primary areas: fires/effects; intelligence and information; planning and analysis; force protection; and sustainment. Reach-back is based on: advanced C4ISR systems with the appropriate interfaces with higher headquarters and outside agencies and the appropriate connectivity for distributed operations at range and in urban and complex terrain; a set of TTP to govern staff activity; a well-trained staff that understands the capabilities available through reach-back; and how best to employ them for mission requirements.

²⁵ Department of the Army, The Interim Brigade Combat Team Organizational and Operational Concept, 12.

²⁶ Mehaffey, 11.

²⁷ Mehaffey, 11.

²⁸ Department of the Army, Tactics, Techniques, and Procedures for INITIAL BRIGADE COMBAT TEAM, Field Manual 34-80-2/ST, Coordinating Draft (Fort Huachuca, AZ.: U.S. Army Intelligence Center and Fort Huachuca, 31 October 2000), 13-4.

²⁹ Ibid, 14-1.

³⁰ Ibid, 15-1 thru 15-2.

³¹ Ibid, 12-2 thru 12-3.

³² Department of the Army, The Interim Brigade Combat Team Organizational and Operational Concept, 38-39.

³³ Ibid, 22-23.

³⁴ Department of the Army, Field Manual 34-80-2/ST, 8-1.

³⁵ Ibid, 9-2. The term “non-organic ISR organizations” refers to all organizations that not part of the IBCT. These assets and organizations can be at division (accessed through the tactical internet) or as high as national (accessed through Trojan SPIRIT or Joint Tactical Terminal).

³⁶ Department of the Army, Tactics, Techniques, and Procedures for INITIAL BRIGADE COMBAT TEAM, Field Manual 34-80-2/ST, 7-7 and 9-4. Joint Deployable Intelligence Support System (JDISS) is a software package for the standard workstation server. The basic backbone for communications is the Joint Worldwide Intelligence Communications System (JWICS) network. When JWICS is not available, JDISS can interface with the existing communications systems, such as tri-service tactical communications systems. The JDISS on board a Trojan SPIRIT allows the ISR Analysis Platoon to access, focus, and tailor the broader technical and analytical products from national and theater analysis centers.

³⁷ Department of the Army, Field Manual 34-80-2/ST, 9-2.

³⁸ David D. Perkins, LTC, USA, “Counterintelligence and Human Intelligence Operations in Bosnia,” American Intelligence Journal 18, no. 1&2 (1998): 33, 35. The S-2X (a new concept under the tactical HUMINT initiative) coordinates, de-conflicts, and synchronizes all CI and HUMINT activities in the sector of operations. Recent contingency operations, especially military operations other than war (MOOTW) and stability and sustainment operations (SASO) have brought CI and HUMINT to the forefront of intelligence operations. The J2X/G2X/S-2X concept is an effort to leverage the unique and often “restricted” information found in CI/HUMINT channels. The table of organization authorizes a 35F officer in the S-2X billet. These officers are specially trained in HUMINT operations. The S-2X section provides HUMINT management by synchronizing organic collection efforts with theater [the CI coordinating authority, and other CI/HUMINT personnel (Air Force, Navy, and Marine Corps)] and national HUMINT agencies [Defense HUMINT Service (also referred to as DHS) and National agency liaison officers].

³⁹ Department of the Army, Field Manual 34-80-2/ST, 9-5 thru 9-6.

⁴⁰ Operations in Somalia, Haiti, and Bosnia display the increase in human interaction between the population and U.S. forces. High intensity conflict, like operation DESERT STORM, because it is fast-paced, makes the acquisition of HUMINT more difficult, and potentially less relevant because of the expanded nature of the battlefield.

⁴¹ Ibid , 10-1.

⁴² Ray L. Aldrich, CW3 (RET), USA, “How Will We Talk To Them All,” Military Intelligence 26 (April-June 2000): 43-44.

⁴³ Initially, some IBCTs are assigned to divisions that are not constructed like the IDIV. Eventually, all divisions will have the IDIV structure and capabilities.

⁴⁴ Mehaffey, 16.

⁴⁵ Department of the Army, Operations, Student Text 3-0, 3-2. The attributes of strategically responsive forces are responsive, deployable, agile, versatile, lethal, survivable, and sustainable.

⁴⁶ Department of the Army, The Interim Division Organizational and Operational Concept, Version 3.7. (Fort Monroe, VA: Training and Doctrine Command, 30 June 2000): 1.

⁴⁷ Ibid, 1-2.

⁴⁸ Ibid, 39.

⁴⁹ Ted Martens <ted.martens@hua.army.mil>, "IDIV," electronic mail message to Stephen Perkins <Stephen.Perkins@carlisle.army.mil>, 22 January 2001.

⁵⁰ Department of the Army. The Interim Division Organizational and Operational Concept, 12.

⁵¹ Stephen R. Kostek, LTC, USA, "Joint Tactical Terminal and Common Integrated Broadcast Service-Modules (JTT/CIBS-M)," Military Intelligence 24 (October-December 1998): 33. The term "broadcast systems" refers to the current IBS intelligence networks: Tactical Reconnaissance Intelligence Exchange System (TRIXS); Tactical Information Broadcast Service (TIBS); Tactical Related Applications Program (TRAP) Data Dissemination Systems (TDDS); Tactical Data Information Exchange Subsystem-Broadcast (TADIXS-B); Secondary Imagery Dissemination System (SIDS). A number of collection systems feed their collected data into a satellite system that pushes intelligence to receivers. Using this data, analysts can create a common operating picture of the enemy. The Joint Tactical Terminal (JTT) Common Integrated Broadcast-Modules (JTT/CIBS-M) program allows each regional commander in chief, Army, Air Force, Navy, Marine Corps, Special Operations Forces, and other agency users to exploit the current IBS intelligence networks. The JTT also supports the evolving IBS broadcast architecture, including changes to message formats and transmission protocols and the use of different portions of the radio frequency spectrum. The IBCT and the IDIV have access to broadcast intelligence as long as they are in the swath of the satellites.

⁵² Department of the Army, The Interim Division Organizational and Operational Concept, 62.

⁵³ Michael A. Fant, LTC, USA, former commander, 15th Military Intelligence Battalion (Aerial Exploitation), interview by author, 23 February 2001.

⁵⁴ Ted Martens, MAJ, USA, Chief, Transformation Team, Combat Developments, U.S. Army Intelligence Center and School, telephone interview by author, 22 January 2001.

⁵⁵ Michael E. Fox, LTC, USA, former commander, 502d MI Battalion (Operations) <Michael.Fox@carlisle.army.mil>, "TES," electronic mail message to Stephen Perkins <Stephen.Perkins@carlisle.army.mil>, 27 February 2001. The DTES replaces the Mobile Integrated Tactical Terminal (MITT) and provides the division with Tactical Exploitation System (TES) capabilities. The TES combines all TENCAP functionality into a single, integrated, downsized, scalable system specifically designed for split-base operations. This support is in the form of integrated IR, SAR, EO, DMA. Thus TES serves as a preprocessor (parser) for All Sources Analysis Systems (ASAS), Joint Stars Common Ground Station (CGS) and the Digital Topographic Support System (DTSS). It can link to data collected by Rivet Joint, U2, LightSAT, UHF SATCOM, Global Broadcast System (GBS), Starlite, Predator, Global Hawk, DDS, ATARS and Dark Star. With these links, DTES will have SIGINT/IMINT workstations and produce integrated SIGINT/IMINT products.

⁵⁶ Mehaffey, 16.

⁵⁷ Fant, interview by author, 26 January 2001.

⁵⁸ Department of the Army, Army Operational Support, Field Manual 3-100, 7-40 thru 7-42.

⁵⁹ Department of the Army, Army Operational Support, Field Manual 3-100, Second Draft (Washington, D.C.: U.S. Department of the Army, February 2001), 7-39.

⁶⁰ Brian Keller, COL, USA <KellerB@mi513.gordon.army.mil>, "Theater Intelligence Support," electronic mail message to Stephen Perkins <Stephen.Perkins@carlisle.army.mil>, 27 February 2001. There are two TIBs that support the two MTW concept. The 501st MI Brigade in Korea supports MTW West. The 513th MI Brigade at Fort Gordon, Georgia supports MTW East. Each has a different force structure and their capabilities support the needs of the ASCC and the CINCs.

⁶¹ Department of the Army, Intelligence and Electronic Warfare Operations, Field Manual 34-1 (Washington, D.C.: U.S. Department of the Army, 1994), 1-4.

⁶² The author defines the term "sanctuary" as the area, normally out of the theater, where organizations reach-back to access a central information resource. For deploying units, the sanctuary is usually the deployed unit's home facility. Stay-behind personnel usually provide support or contact outside organizations for assistance.

⁶³ The author bases this comment on his personal experience during operations VIGILANT WARRIOR (1994) and DESERT FOX (1998), and his discussion with members of the 103d Military Intelligence Battalion ACE about their experiences in Bosnia and Kosovo from June 1998 to June 2000.

⁶⁴ William J. Tait, LTC, USA, commander, 104th Military Intelligence Battalion, interview by author, 15 December 2000.

⁶⁵ Richard J Quirk, III, BG, USA, "Training the MI Force for the Future, Military Intelligence 26 (October-December 2000): 30.

⁶⁶ Ibid.

⁶⁷ Frederick A. Rudesheim, LTC(P), USA, former observer/controller at the National Training Center and the Battalion Command Training Program, interview by author, 24 January 2001.

⁶⁸ James M. Dubik, MG, USA, "ICBT at Fort Lewis," Military Review 80 (September-October 2000): 22.

⁶⁹ The term "internal signals" refers to frequencies and frequency characteristics of radios and radars. SIGINT processors can exploit these "internals" and through analysis determine the type of system and/or the unit for exploitation.

⁷⁰ The term "external signals" refers to plain or encrypted communications. SIGINT analysts, using either standard or "black box" collection systems, translate the "externals" for exploitation.

⁷¹ Kevin C. Peterson, COL, USA, "Prophet: Tactical SIGINT for the 21st Century," Military Intelligence 26 (July-September 2000): 40-42.

⁷² Gus E. Greene, Sr., LTC(P), USA, former action officer, Directorate of Combat Developments, U.S. Army Intelligence Center and School and former commander, 104th Military Intelligence Battalion, interview by author, 4 January 2000.

⁷³ Rick Lynch, COL(P), USA, ed., Joint Strike Force Operational Concept, Final Draft (Fairfax, VA: Institute of Defense Analysis, 13 September 2000), 57-60.

⁷⁴ Based on the author's evaluation of the All Services Combat Identification Equipment Tests (ASCIET) in 1999 and 2000 conducted at Fort Stewart, Georgia. The author was the commander of the 103d MI Battalion; the 103d MI was a participating unit during ASCIET 99 and 00.

⁷⁵ Raul E. Escribano, MAJ, USA, and Phillip J. Logan, MAJ, USAR, "Transforming the Army for the Next Century—The Future Is Here Today!", Military Intelligence 26 (September-December 2000): 12.

⁷⁶ The acronym "SMART-T" is an abbreviation for "Secure Mobile Anti-jam Reliable Tactical Terminal." The SMART-T is a low cost HMMWV-mounted extremely high frequency (20-40 GHz) satellite terminal, which provides unattended, robust, worldwide, low-probability of detection, jam resistant, multi-channel communications in support of field commander at the division-level and above. It operates over MILSTAR I, MILSTAR II, and UHF Follow-on (UFO) communications satellites.

⁷⁷ The acronym "STAR-T" is an abbreviation for "SHF (super high frequency) Triband Advanced Range extension Terminal." The STAR-T is a low cost HMMWV-mounted, triband (C, X, Ku) earth station capable of providing quick reaction communications via satellite. The STAR-T replaces the Trojan Special Purpose Integrated Remote Intelligence Terminal (SPIRIT), which is the "long haul" system in MI organizations at the IBCT and echelons division and above.

⁷⁸ William A. Carrington, COL, USA, and Jerry L. Schlabach, MAJ, USA, "The MI-Signal 'Rock Drill' for the Initial Brigade Combat Team," Military Review 26 (July-September 2000): 18.

⁷⁹ Robert W. Noonan, Jr., LTG, USA, "The Transformation of Army Intelligence," Military Intelligence 26 (September-December 2000): 9.

⁸⁰ Dennis Steele, "The ARMY Magazine Hooah Guide to Army Transformation," Army 51 (February 2001): 22. This quote came from an October 1999 speech launching Army Transformation.

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